



# AWS Service Delivery Program Amazon Redshift Consulting Partner Validation Checklist

May 2018  
Version 1.0

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## Introduction

The goal of the AWS Service Delivery Program is to recognize APN Partners who demonstrate successful customer delivery and expertise in specific AWS services. The AWS Service Delivery Validation Checklist is intended to prepare APN Partners who are interested in applying for AWS Service Delivery. This checklist provides the criteria necessary to achieve the designation(s) under the AWS Service Delivery Program.

## Expectations of Parties

Once APN Partners have applied to a designation within AWS Service Delivery, APN Partners undergo a validation of their capabilities known as the technical validation upon applying for any AWS Service Delivery designation, and every 12 months thereafter. AWS leverages in-house expertise and may leverage a third-party firm to facilitate the review.

AWS reserves the right to make changes to this document at any time. **It is expected that APN Partners will review this document in detail before submitting an AWS Service Delivery application, even if pre-requisites are met.** If items in this document are unclear and require further explanation, please contact your Partner Development Representative (PDR) or Partner Development Manager (PDM) as the first step. Your PDR/PDM will contact the Program Office if further assistance is required.

In order to begin the validation process, please follow the steps outlined below:

- Step #1: Review the Partner Validation Checklist and ensure all requirements are met
- Step #2: Submit an AWS Service Delivery Application through the APN Partner Central
  - Login to the APN Partner Central
  - Click "View My APN Account" in left navigation
  - On this page, first submit the following:
    - Your AWS Service Specific AWS Customer Case Study (2) with attached Architecture Diagrams
    - Your AWS Service Specific Consulting Practice
  - Next, scroll to AWS Service Deliveries and select the AWS service you want to apply for
  - Complete the Service Delivery Application

Incomplete applications will not be considered and will be declined until all requirements are met.

Once your firm's application has been submitted through the APN Partner Central, the APN Team will review for completeness and for compliance with the prerequisites. Next we send applications to in-house or third-party experts to complete a Technical Validation.

AWS recommends that APN Partners have individuals who are able to 1) provide evidence of compliance and 2) speak in-depth to the technical requirements about the AWS Service during the validation process.

Upon completion of the Technical Validation, APN Partners will receive a final status for the submitted application either confirming or not confirming the APN Partners' acceptance into the Service Delivery Designation. APN Partners may attain one or more AWS Service Delivery Designations. Attaining one designation does not guarantee approval into additional Service Delivery Designations.

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## Program Participation and Benefits

In addition to the benefits you receive as an APN member, partners that qualify for the AWS Service Delivery Program will receive a number of valuable benefits including:

- Shared customer opportunities
- Preferred access to Market Development Funds
- Press releases with AWS leadership quotes
- Direct and prioritized access to Amazon Partner Network reference team
- AWS Service Delivery spotlight guest series on APN Blog
- Exclusively showcased on the AWS website
- Public designation on the AWS product pages for AWS Service Delivery Designations
- Inclusion and prioritization on AWS Partner Solution Finder
- APN Partner spotlights
- Included in internal AWS Sales Enablement
- Listed as preferred APN Partners in AWS newsletters
- Preferred access to AWS Service Trainings
- Preferred access to NDA roadmap webinars.

## Validation Process and Timing

After the audit, the APN Partner will receive a summary (**within 24 hours**) from the auditor detailing strengths, opportunities for improvement, and action items. APN Partners have **five (5) business days** from receipt of the audit summary to respond to and address any identified action items.

Action Items must be closed out prior to approval of entry into the AWS Competency Program. If the APN Partner is not able to fully close the Action Items in five (5) business days, an action plan detailing how and when the item will be closed must be provided to the AWS Competency Program Manager.

The auditor will submit a final report to AWS after the five (5) business days have passed, and no later than 10 business days after the audit.

The final determination of acceptance into the AWS Competency Partner Program will be made after AWS receives the final audit report and no longer than 20 business days from receipt of the report.

## Impact of Merger, Acquisition, and Divestiture Activity

The AWS Competency Program incorporates the use of an audit to validate the APN Partner's technical capabilities, as well as its business and delivery models. These business and delivery models are often significantly impacted in the process of mergers, acquisitions and divestitures. As a result, APN Partners may be required to reapply and complete a new audit based on the resulting businesses from their M&A activity. Please refer to the guidelines below.

### Acquisition/Merger

Competency Partner acquires non-Competency Partner: No immediate action required. The Competency Partner should describe any impacts to its AWS Competency practice during any subsequent audit.

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Non-Competency Partner acquires Competency Partner: New application and audit required for acquiring APN Partner to be recognized as an AWS Competency Partner. The new business and delivery models, as well as the integration of the acquired technical capabilities, must be validated through the third-party audit process. We recommend that this be done as soon as possible to ensure continued recognition in the AWS Competency Program.

Competency Partner acquires another Competency Partner: No immediate action required. The consolidated entity will be assessed during the renewal audit for either of the original entities (whichever date is soonest).

### **Divestiture**

Competency Partner divests a portion of its business related to its AWS Competency practice: The divesting business should immediately disclose significant impacts to its AWS Competency practice that would materially impact its standing as a Competency Partner. Depending on the significance of the impact, the APN Partner will either be immediately removed from the program or will be required to highlight impacts to the business during the next renewal audit. The divested business will be required to apply to the Competency Program as a new APN Partner.

## **Definitions**

### **Partner Solution**

AWS Service Delivery Designations are granted to APN Partners orchestrating and deploying a specific AWS Service(s) to their customers, conforming to the requirements of an AWS Service Delivery.

### **AWS Case Studies**

All APN Partners will need to provide AWS Case Studies detailing completed deployments of an AWS Service. An AWS Case Study is a written description of a completed customer project that includes individual customer solutions and outcomes. Case Studies should include an introduction to the customer, overview of the challenge, details about how the APN Partner built and deployed AWS Services, and additional 3rd Party tools leveraged, date delivered, and outcomes realized by the customer.

AWS Case Studies should be identified in writing to AWS as being either *public* (can be shared with public audiences) or *non-public* (can only be shared with AWS and its third-party auditor for the purpose of the audit or demonstrating to AWS that Partner meets program requirements). Once approved for an AWS Service Delivery, *public* AWS Case Studies will be used on the AWS website to showcase partner-customer success.

### **AWS Technical Validation**

All APN Partners will undergo an AWS Technical Validation in order to achieve an AWS Service Delivery Designation. Technical Validations are assessments of a Partner's service level skills in the context of specific AWS Case Studies. Technical Validations confirm the APN Partner's capabilities in developing and delivering AWS Services to AWS customer while conforming to the AWS best-practices for that service. APN Partners demonstrate to in-house or third-party experts what they've done specific to the AWS Case Studies submitted for the Service Delivery Designation.

Requirements for Technical Validations are fully documented in the Service Delivery Technical Validation Checklist below. Each Technical Validation is comprised of two elements:

1. **Documentation Review:** APN Partners will be expected to present technical documentation detailing the Partner Capabilities and each AWS Case Study provided. In-house or third-party experts will use the documentation to confirm alignment with the requirements of the Service Delivery as described in the

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checklist. The documentation is expected to consist of both public information (e.g. on- or offline deployment guides, installation manuals) and non-public information (e.g. architecture diagrams, design documents, and security assessments.) Public information will be assessed for alignment with best practices and the use of APN-approved marketing language. Non-public information may be anonymized at the APN Partner's discretion.

2. **Service Delivery and service-specific technical requirements:** Each Service Delivery Designation is intended to highlight how APN Partners deliver AWS services to address a customer problem. As such, the checklist may include service-specific requirements highlighting specific methodologies and capabilities the APN Partner must provide to customer. Please see the checklist for more information.

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# AWS Service Delivery Program Prerequisites

AWS Service Delivery Partners have demonstrated success helping customers evaluate and use AWS services productively, at varying levels of complexity, and at scale by completing the below requirements.

The following items must be met before a Technical Validation review will be scheduled. These items will be validated by the AWS Service Delivery Program Manager; any deficiencies must be addressed prior to scheduling a validation review.

1.0 APN Program Membership		Met Y/N
APN Partner is Standard, Advanced, or Premier APN Consulting Partner (view <a href="#">requirements</a> )		
2.0 AWS Case Studies		
<b>2.1 <u>AWS Customer Case Studies</u></b>	<p>APN Partner has two (2) case studies demonstrating successful delivery of the AWS Service(s) that are in production to their customers, rather than in pilot or proof of concept stage.</p> <p><i><b>Note:</b> Public-facing references are encouraged over private references, as they may be used by AWS for marketing purposes. Evidence of a publicly referenceable case study must be provided in the form of a case study, white paper, blog post, or equivalent, and must be easily discoverable on the APN Partner’s website.</i></p>	
	<p>APN Partner provides for each reference:</p> <ul style="list-style-type: none"> <li>▪ Name of the customer</li> <li>▪ AWS Account ID (Will be used to verify AWS Service Usage)</li> <li>▪ Problem statement/definition</li> <li>▪ What you proposed</li> <li>▪ How AWS Services were used as part of the solution</li> <li>▪ Third party applications or solutions used</li> <li>▪ Start and end dates of project</li> <li>▪ Outcome(s)/results</li> <li>▪ Lessons Learned</li> </ul>	
<b>3.1 <u>Architectural Diagrams</u></b>	<p>Submitted case studies must include architectural diagrams.</p> <ul style="list-style-type: none"> <li>▪ Architectural diagrams must detail how the solution interacts with the AWS Cloud; specifically, what AWS tools and services are used in the solution</li> <li>▪ Diagrams must also include evidence of AWS best practices for architecture and security</li> </ul>	
<b>4.1 <u>Partner Practice Landing Page</u></b>	<p>APN Partner must have an AWS-branded microsite that is related to or specific to AWS Service.</p> <ul style="list-style-type: none"> <li>▪ Evidence must be provided in the form of a public reference to the APN Partner’s solution, practice, or service-specific webpages.</li> <li>▪ APN Partner microsite must be accessible from APN Partner home page; Home page is not acceptable as a microsite.</li> </ul>	

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## AWS Service Delivery Program Requirements

In preparation for the validation process, APN Partners should become familiar with the items outlined in this document, and prepare objective evidence, including but not limited to: prepared demonstration to show capabilities, process documentation, and/or actual customer examples.

### Amazon Redshift Approval Criteria

The AWS Service Delivery Program is guided by [AWS best practices](#) and [Well Architected Framework](#).

Amazon Redshift Validation Checklist		Detailed Description of Evidence	Met Y/N
1.0 Case Study Requirements	<p><b>Two customer references are provided that contain one or more of the following to receive a designation:</b></p> <ul style="list-style-type: none"> <li>Amazon Redshift</li> <li>Amazon Redshift Spectrum</li> <li>Amazon S3 Data Lake implementation using Amazon Redshift</li> </ul>	Customer implementation description or documentation	
	<p><b>For engagements where the customer will have responsibility for managing the database, details on customer enablement to allow the customer to use and evolve the solution over time. This customer enablement information should include at least the following evidence:</b></p> <ul style="list-style-type: none"> <li>Training and reference materials provided to the customer to ensure that they understand the Amazon Redshift service.</li> <li>Training and reference materials provided to the customer to demonstrate how they are able to operate and evolve their Amazon Redshift cluster(s) to meet their current and future requirements.</li> <li>Training and reference materials that show the customer how to measure the performance of their Amazon Redshift cluster(s) as well as how to evaluate the current cost of their cluster(s).</li> <li>Training and reference materials that show the customer how to make adjustments to their Amazon Redshift cluster(s) based on performance and cost measurements.</li> </ul> <p><b>Details of a properly sized Amazon Redshift architecture based on the customer's pre-Amazon Redshift architecture or requirements for a new application being developed. The purpose of this information is to show the ability to match up customer requirements and usage patterns with what can be done in an Amazon Redshift cluster. Details should include:</b></p> <p>Existing Architecture:</p> <ul style="list-style-type: none"> <li>Pre-Amazon Redshift architecture and what its performance and availability characteristics were.</li> <li>High Availability and Recovery model of the existing architecture.</li> </ul>	Customer implementation description, documentation, and proof in Architecture Diagrams.	

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- Shortcomings of the existing architecture.
- Final Amazon Redshift architecture, how it lines up against the previous architecture, and how it meets or exceeds the current customer implementation in regards to cost, operations, and performance.

**New Application:**

- Requirements for the new application and what the database needs were. Details should include: availability needs, regional or multi-regional access needs, transactions per second, database initial size, and expected growth rate of the size of the database.
- Final Amazon Redshift architecture and details on how the final architecture lines up with the application requirements.

**Details on what the customer was provided in relation to implementing database security related to their Amazon Redshift cluster(s). This would include such items as:**

- How to implement password policies for their database (password strength, rotation policies, etc.)
- How to implement secure password storage, retrieval, and rotation for human and application access to the database.
- How to capture and analyze available log files for potential security events related to their database.
- Encryption options for data at rest or at the column level.
- Relevant AWS security features:
  - Identity and Access Management configuration.
  - Configuration of the VPC and overall network containing the database and applications interacting with the database.
  - Access controls to the database and database subnets via security groups and Access Control Lists.

**Details on what assistance was provided to the customer on how their application could be architected to take advantage of functionality that exists within Amazon Redshift. This would include, but is not limited to:**

- Design, build, and load of tables to leverage massively parallel processing, columnar data storage, and columnar data compression
- Query design (give examples)
- Workload management (give examples)

**Details on what assistance was provided to the customer on how their application and Redshift cluster can be monitored. This would include, but is not limited to:**

- Metrics for compute and storage utilization and read/write traffic to the Amazon Redshift cluster(s)
- Metrics around Amazon Redshift query and cluster performance
- Monitoring of error logs for operational failure

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	<p><b>For engagements where the customer will have responsibility for managing the database, details on guidance that was provided to the customer in order to enable them to meet their Recovery Time Objective (RTO) and Recovery Point Objective (RPO).</b> This guidance would be specific to Amazon Redshift and should include the following:</p> <ul style="list-style-type: none"> <li>▪ How to recover in the same AWS region and in a different AWS region. This would involve techniques such as creating snapshots and replicating snapshots.</li> <li>▪ Use cases where snapshots can be used. This would include, but not be limited to: <ul style="list-style-type: none"> <li>○ Recovery due to unavailability of a region.</li> <li>○ Recovery and research due to operator error and application bugs.</li> <li>○ Recovery due to unexpected data loss or corruption.</li> </ul> </li> <li>▪ How to perform periodic testing of the customer's recovery/restore process to confirm that processes and procedures are known and proved to work in advance of actually needing them.</li> </ul> <p><b>For engagements where the partner will be managing the customer's database, provide details on what is in place to enable the customer to meet their Recovery Time Objective (RTO) and Recovery Point Objective (RPO).</b> This recovery plan would be specific to Amazon Redshift and should include the following:</p> <ul style="list-style-type: none"> <li>▪ Techniques being used to recover in the same AWS region or a different AWS region, based on customer requirements.</li> <li>▪ Outline how testing of the recovery and restore process is done and how frequently this testing is performed for each customer.</li> <li>▪</li> </ul>		
<p><b>2.0 AWS Service Requirements</b></p>	<p><b>2.1 Solution Characteristics:</b> Each submitted customer reference includes and describes in detail the approach, implementation, and customer acceptance testing for at least one the following use cases. While at least one use-case is needed, please highlight all the use cases that applied to the customer reference.</p> <ul style="list-style-type: none"> <li>▪ An Amazon S3 based data lake using Amazon Redshift and/or Amazon Redshift Spectrum</li> <li>▪ Use of encryption in the database (either server side or client side).</li> <li>▪ A migration to Amazon Redshift from a different data warehouse or RDBMS.</li> </ul>		
<p><b>2.2 Solution Complexity:</b></p>	<p>Each submitted customer reference is for a database at least 50GB in size. Please provide the following characteristics of the database:</p> <ul style="list-style-type: none"> <li>▪ Initial size of the database.</li> <li>▪ Expected yearly growth of the database.</li> </ul>		

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	<ul style="list-style-type: none"> <li>▪ Anticipated number of tables in the database.</li> <li>▪ Anticipated number of concurrent requests during peak use of the database.</li> <li>▪ Anticipated percentage of read operations against the entire database during peak usage.</li> <li>▪ Anticipated percentage of write operations against the entire database during peak usage.</li> </ul>		
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**Useful links:**

[Amazon Redshift Cluster Management Guide](#)  
[Amazon Redshift Database Developer Guide](#)

**Amazon Redshift Best Practices**

[https://docs.aws.amazon.com/redshift/latest/dg/c\\_designing-tables-best-practices.html](https://docs.aws.amazon.com/redshift/latest/dg/c_designing-tables-best-practices.html)  
[https://docs.aws.amazon.com/redshift/latest/dg/c\\_loading-data-best-practices.html](https://docs.aws.amazon.com/redshift/latest/dg/c_loading-data-best-practices.html)  
[https://docs.aws.amazon.com/redshift/latest/dg/c\\_best-practices-best-dist-key.html](https://docs.aws.amazon.com/redshift/latest/dg/c_best-practices-best-dist-key.html)  
<https://docs.aws.amazon.com/redshift/latest/dg/tutorial-configuring-workload-management.html>

**Performance Tuning**

<https://aws.amazon.com/blogs/big-data/top-10-performance-tuning-techniques-for-amazon-redshift/>

**High Performance ETL**

<https://aws.amazon.com/blogs/big-data/top-8-best-practices-for-high-performance-etl-processing-using-amazon-redshift/>

**Best practices for Amazon Redshift Spectrum**

<https://aws.amazon.com/blogs/big-data/10-best-practices-for-amazon-redshift-spectrum/>

**Amazon Redshift CloudWatch Metrics**

<https://docs.aws.amazon.com/redshift/latest/mgmt/metrics-listing.html>

*AWS reserves the right to make changes to the AWS Service Delivery Program at any time and has sole discretion over whether APN Partners qualify for the Program.*

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